CHAPTER 1
PURPOSE AND NEED

1.1 INTRODUCTION

The National Park Service (NPS), Theodore Roosevelt National Park (the park) is proposing to replace the North Unit Visitor Center, which needed to be abandoned because of recurring structural problems. The North Unit Visitor Center (subsequently referred to as the Abandoned Visitor Center) supported the park's interpretive and educational uses as well as administrative functions of the North Unit.

An Environmental Assessment (EA) is used to determine whether further impact analysis is needed in an Environmental Impact Statement (EIS). When an EIS is not necessary, an EA fulfils compliance with environmental planning requirements. This EA identifies and evaluates alternatives for a new visitor center and the potential adverse and beneficial environmental impacts that constructing and operating the visitor center (the Project) would have on the human environment. The Project would involve construction of a new facility and demolition of the existing facility. Chapter 2, Alternatives, describes the Project in detail and discusses the alternatives considered for the Project. Chapter 3, Affected Environment and Environmental Consequences, describes the human environment and the potential impacts of implementing each alternative carried forward for further analysis. Chapter 4, Consultation and Coordination, discusses the scoping process for the Project, the public and agency coordination that has occurred, and the input that has been received. Chapters 5 and 6 present the list of preparers of the EA and the references, respectively.

This EA has been prepared in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC] 4321-4347), which requires that Federal agencies analyze the impacts of their actions on the environment. In accordance with the Advisory Council on Historic Preservation's regulations (36 Code of Federal Regulations [CFR] 800.8(c)), NPS similarly used the NEPA process to meet its obligations under Section 106 of the National Historic Preservation Act.

1.1.1 Project Area

The North Unit of Theodore Roosevelt National Park is located in McKenzie County in western North Dakota. The Abandoned Visitor Center is about 15 miles south of Watford City, North Dakota, and approximately 68 miles north of the South Unit Visitor Center in Medora, North Dakota, as shown in Figure 1. Specifically, the Abandoned Visitor Center is located along Scenic Drive approximately 1,300 feet west of U.S. Highway 85 (US 85), as shown in Figure 2, which also shows features such as roads, trails, and landmarks within the North Unit. Nearly two-thirds of the North Unit is designated Wilderness, one of the largest wilderness areas in the northern Great Plains region (approximately 19,400 acres). The area is dominated by the colorful and scenic Little Missouri River Badlands.

The Project area under consideration for location of the new visitor center includes the eastern portion of the North Unit. The proposed sites for a new visitor center are all in close proximity to the Abandoned Visitor Center.

1.1.2 Project Background

Theodore Roosevelt National Park originated in 1934 as Roosevelt Regional State Park and transitioned to Theodore Roosevelt National Memorial Park in April 1947. The North Unit was added to the park in 1948. Theodore Roosevelt National Park was established through Public Law 95-625, 92 Stat. 3467, on November 10, 1978.

The location for the (now abandoned) North Unit Visitor Center was identified in the park's 1987 General Management Plan/EA (GMP/EA) (NPS, June 1987). The GMP/EA was developed as a planning document to provide strategies for management, use, and development of the park, and to evaluate the potential for environmental impacts of implementing the management strategies. In accordance with 40 CFR 1502.21, this EA for a new visitor center incorporates by reference all information in the GMP/EA that has not changed and does not require additional analysis.

The GMP/EA evaluated one site for constructing a visitor center and the building was constructed in 1992. The building consists of two levels, with approximately 2,100 square feet (approximately 36 feet by 60 feet) on the main floor level and another 2,100 square feet on the lower level (basement). The lower level is constructed of concrete foundation walls supported on spread footings and a concrete slab on grade (directly on the ground). The main level is constructed of wood trusses and plywood sheathing. The trusses span from the north and south walls to a steel beam near the center of the building. The roof is constructed of wood trusses, plywood sheathing and metal. The building was constructed with a standard basement and relied on a sump pump to regulate the amount of water in the vicinity of the basement walls. Additionally, the building was constructed with a portion of the hillside contacting the back wall (the grade along the north face of the building was originally six to seven feet above the main floor elevation), and soil slumping was causing pressure on the ground floor back wall.

Structural movement caused by excessive underground pressure was observed soon after construction was completed. This movement was evaluated in a structural investigation and study completed in 1998. A combination of an underground coal seam actively carrying water, earth pressure from the sloughing slope behind the structure, and expansive clays in the surrounding soil caused structural movement, excessive stress, heaving, and wall cracking. Expansive soils swell when exposed to water, causing soil movement. The sump system was not maintained properly, allowing groundwater pressure to build up outside of the basement walls. Figure 3 is a schematic diagram of the facility and the subsurface forces. Movement of groundwater is not specifically shown in Figure 3; however, groundwater moving into expansive soils caused the soils to expand and move, exerting pressure on the structure.

A project in 2001 temporarily resolved most of the problems. The hillside along the back wall of the building was removed down to the footings. The soils were replaced with stable soils. A drain tile was installed around the building (at the base of the footings) and connected to the existing sump pit. The tile was intended to control water build up

around the building, control water under the building, control water pressure against and under the foundations, and control water pressure on the foundation walls.

Subsequent to the 2001 project, a large section of the embankment has failed and slid down the slope behind the Abandoned Visitor Center. In the spring of 2012, the water line along the south wall of the mechanical room, located in the southeast corner of the building, began leaking and then broke. The sump pump system installed in 2001 was not operational. This saturated the subsurface at the southeast corner of the building (HDR, June 2013). In addition, the park received above average annual amounts of rainfall during 4 of the 5 years between 2009 and 2014 (Naylor, March 2, 2014). The saturated subsurface and high rainfall caused substantial settlement and heaving of the Abandoned Visitor Center rendering the building not structurally safe. The separated roof trusses in Figure 5 and wall cracks in Figure 6 illustrate structural failure. The subsurface forces pushing on the basement walls have affected the structural integrity of the basement and the ground floor.

The forces of flowing water, expansive clays, and soil slumping pushed on the basement walls and concrete slab, causing them to crack and move. The building movement increased pressure on the structural support of the building (columns, beams, and roof trusses), causing damage on the main level as well as the basement. The roof and floor trusses have been compromised due to the building movement, resulting in an inability to support the code-required design loads including wind, seismic, live (people and furniture), and snow (HDR, June 2013).

Figure 4 is a 2013 photograph showing the hill and facility; an exposed coal seam and slumping sediments are identified behind the facility. This and other coal seams at and near this site are an engineering challenge because they actively carry water into the expansive clays during periods of high precipitation. Adding water to expansive soils reduces the cohesiveness of the soil and destabilizes the ground. Cracks on the outside of the building are also shown in Figure 4.

THIS PAGE INTENTIONALLY LEFT BLANK

Figure 1
General Location Map

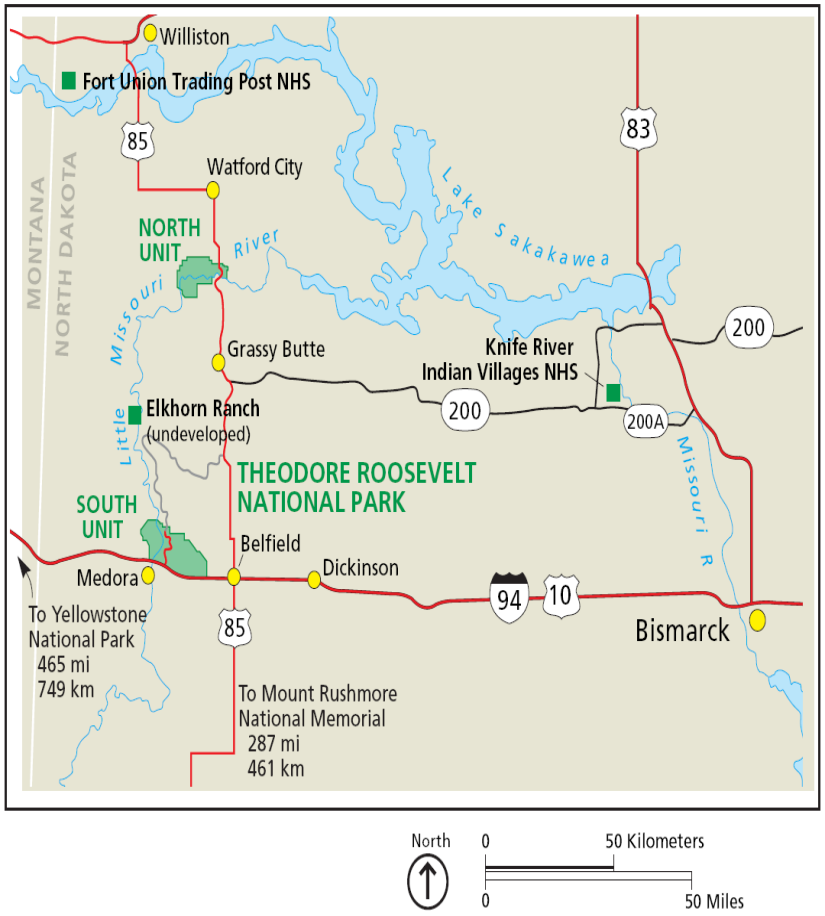


Figure 1
General Location
North Unit
Theodore Roosevelt National Park
United States Department of the Interior
National Park Service

Figure 2
Map of the North Unit

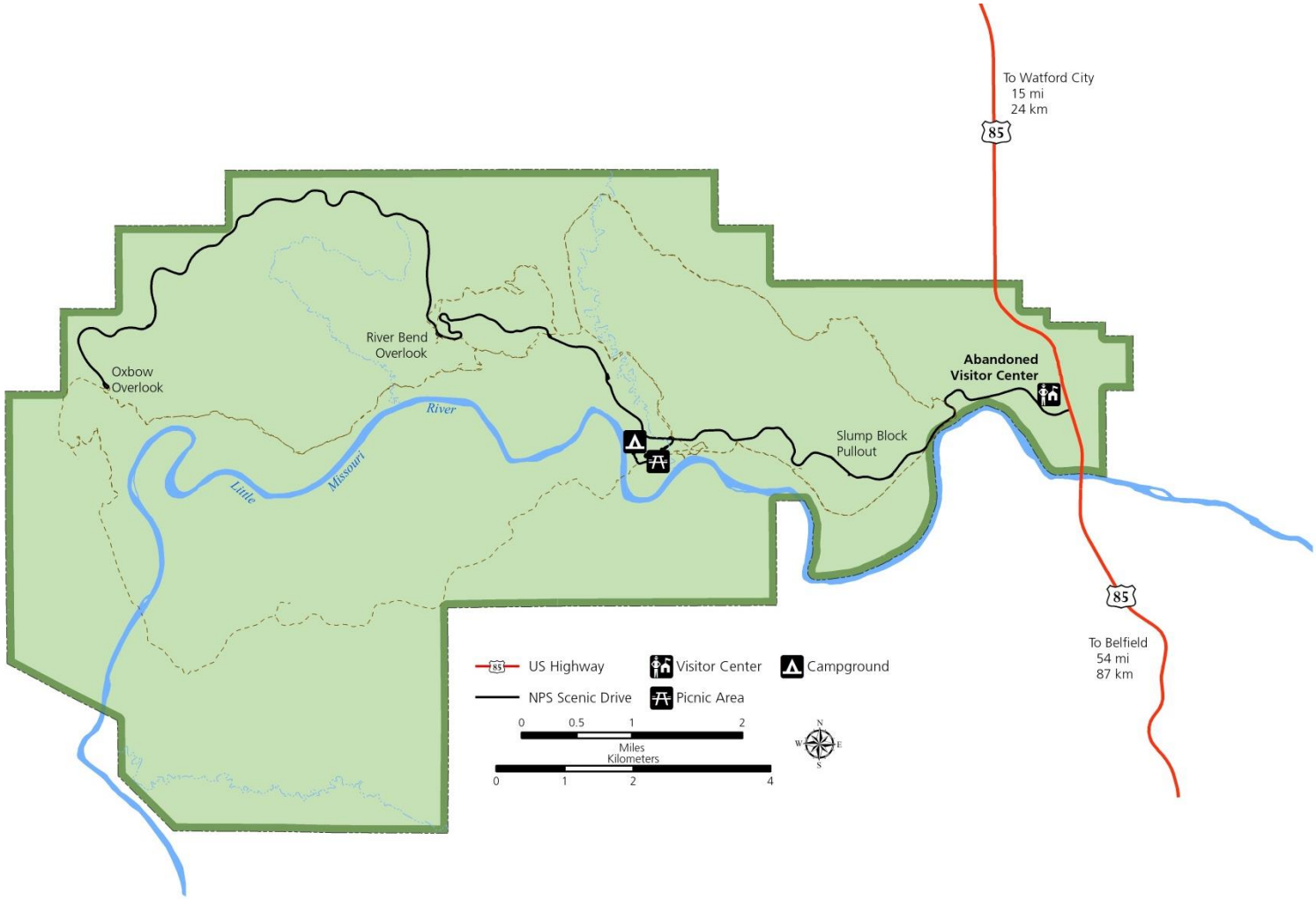
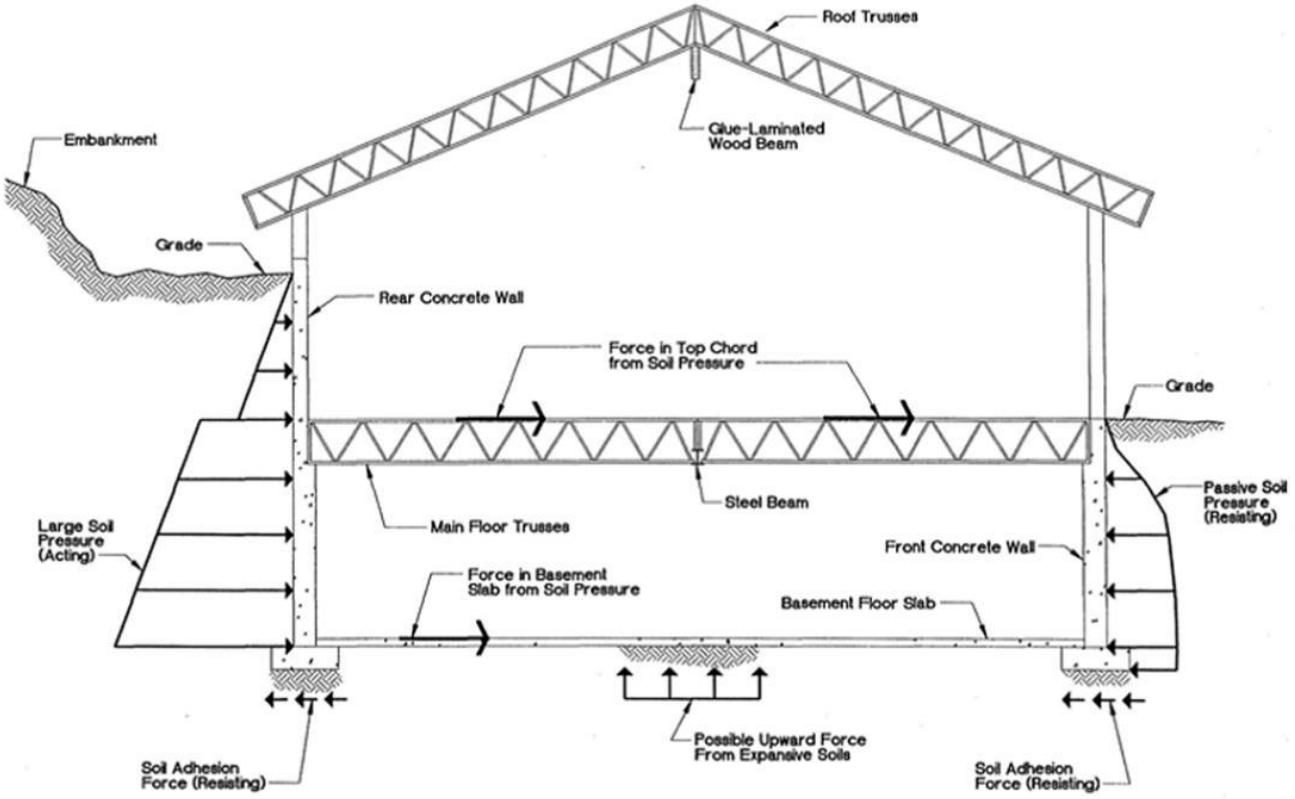


Figure 3
Schematic Diagram of the Initial Facility



Source: HDR, June 2013

THIS PAGE INTENTIONALLY LEFT BLANK

Figure 4
Exposed Coal Seam and Sloughing Slope Behind Abandoned Visitor Center

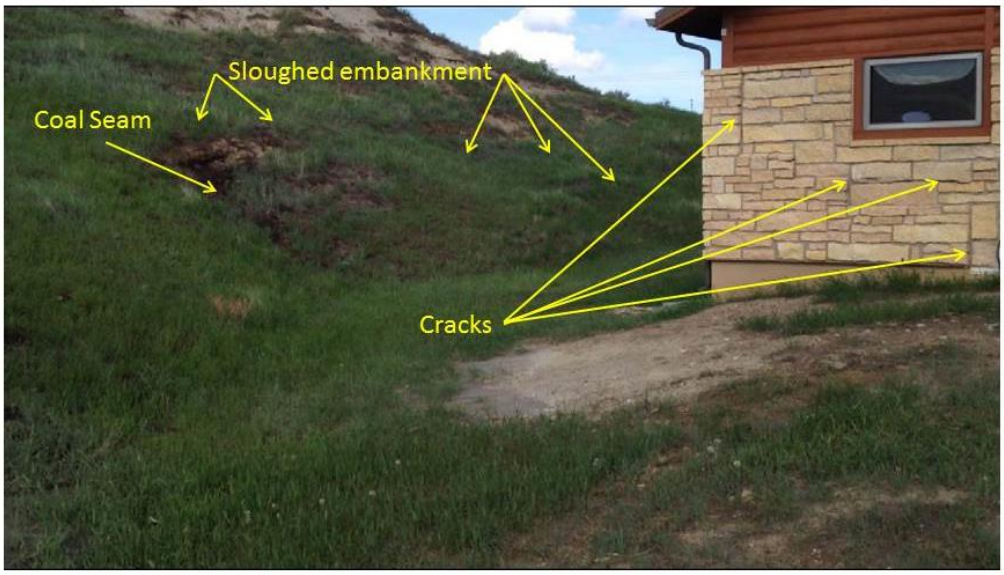


Figure 5
Separating Roof Trusses in Abandoned Visitor Center

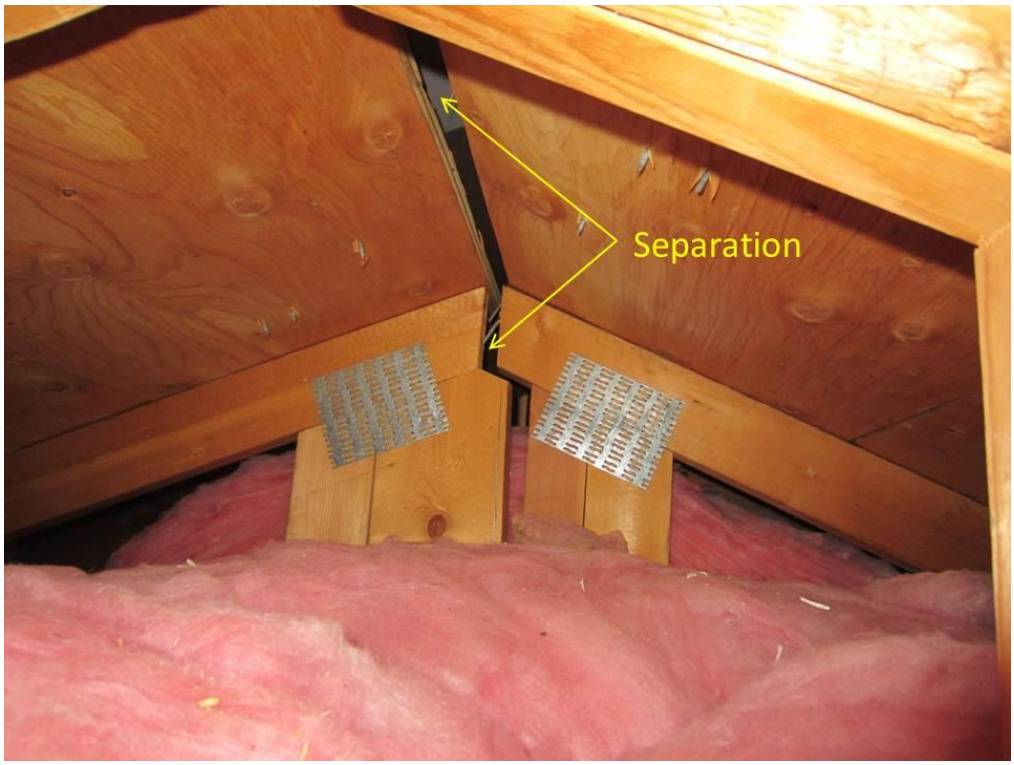


Figure 6
Wall Cracks in Abandoned Visitor Center

The NPS issued a notice on July 9, 2013, that the Abandoned Visitor Center was to be closed as of July 17, 2013, and most visitor contact functions were temporarily moved to the Camptender's Cottage at Juniper Campground (referred to as the Temporary Visitor Center) (NPS, July 9, 2013). To accommodate park visitors and the NPS entrance fee collectors, porta-potty units were installed at the east end of the Abandoned Visitor Center parking lot. Because of frequent road closures and a relatively low number of park visitors, the Temporary Visitor Center is closed in the winter months. The administrative functions of the Abandoned Visitor Center have been moved to Quarters 205B, located approximately 1,200 feet southwest of the Abandoned Visitor Center. The location of the temporary facilities in proximity to the Abandoned Visitor Center is shown in Figure 7. As addressed below in Section 1.3, Need, the Abandoned Visitor Center and the current temporary facilities are inadequate for supporting visitor and administrative functions in the North Unit.

1.2 PURPOSE

The purpose of the proposed Project is to construct a new visitor center on a site that will resist failure from soil and surface water movement, improve visitor capacity and use, enhance visitor experience, incorporate energy-saving technologies, and accommodate administrative support.

1.3 NEED

The proposed Project would address the goal in the GMP/EA of developing a multi-purpose visitor center and administrative facility for the North Unit of Theodore Roosevelt National Park. Additional detail on the need for the visitor center and administrative facility for Theodore Roosevelt National Park as a whole can be found in the GMP/EA; that information is not repeated here but is incorporated by reference.

The proposed Project needs, as discussed below, are in concert with the GMP/EA:

- Accommodate unstable soils and subsurface geologic materials and groundwater.
- Address the shortcomings of the current temporary facilities.
- Provide adequate visitor services, including interpretation of features of Theodore Roosevelt National Park.
- Provide for administrative functions of the park.

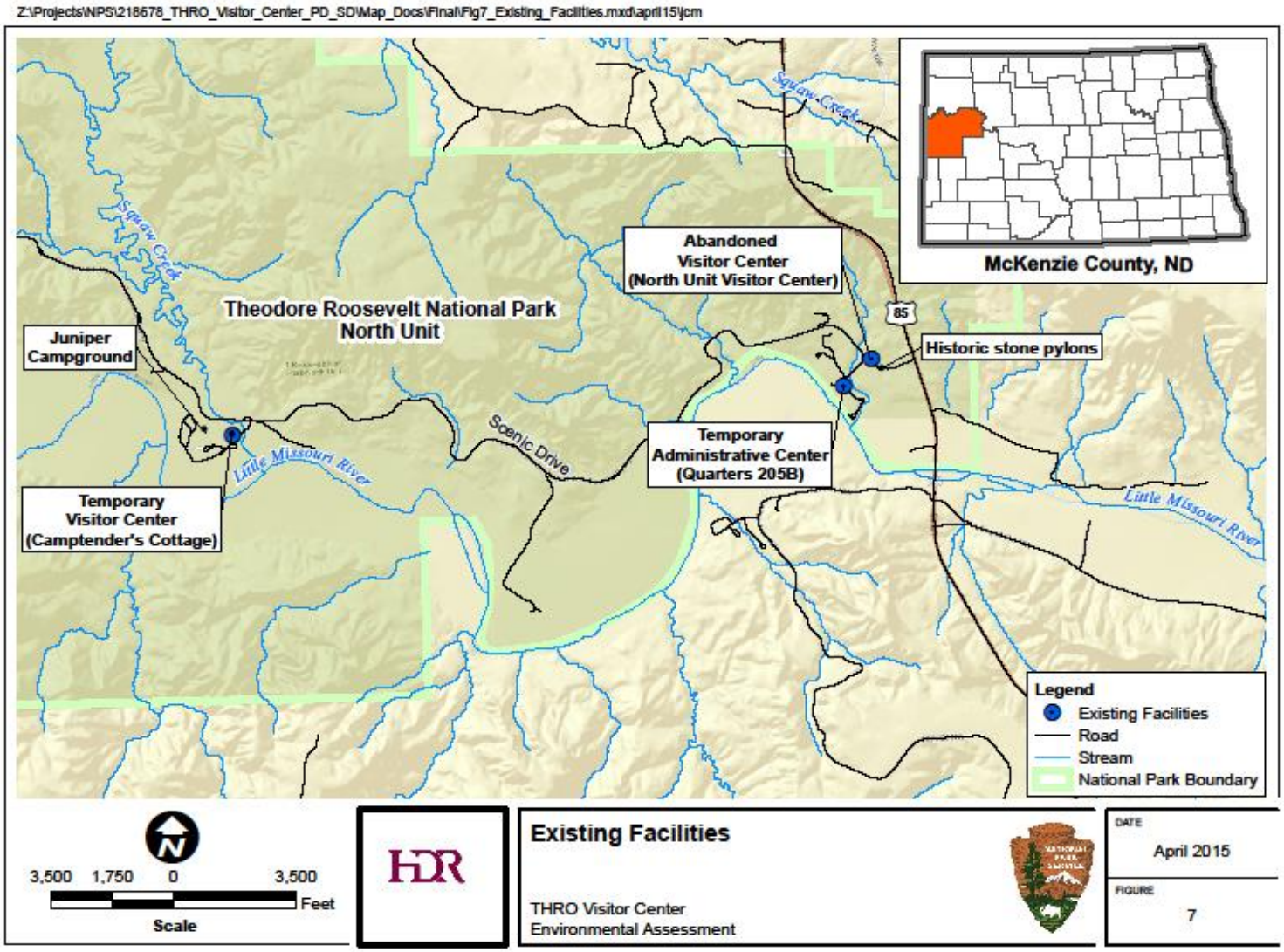
The Abandoned Visitor Center, shown in Figure 8, was originally designed for use as a visitor center and operations facility. Subsequent to its abandonment on July 17, 2013, due to structural problems, most visitor center functions were moved to the Camptender's Cottage (see Figure 9) in Juniper Campground, and administrative functions were moved to Quarters 205B. The use of a temporary trailer(s) or other portable structure(s) in the same area as the Abandoned Visitor Center was considered but not feasible given the short timeframe. Prior to the abandonment of the visitor center, the cottage housed a seasonal employee, who was relocated to shared housing in another park unit. Quarters 205B was a permanent residence that had been recently vacated, but will be needed again for the replacement of the permanent employee. The Camptender's Cottage and Quarters 205B were constructed as housing units and are not fully suitable for the functions they

now perform. Housing availability in the region is scarce because of the oil boom occurring in the area surrounding the park. Consequently, housing within the park is needed for permanent and temporary employees.

Shortcomings of the Camptender's Cottage as the Temporary Visitor Center include its location, which is within the floodplain of the Little Missouri River and is further from the entrance to the park, approximately 4.9 miles southwest of the Abandoned Visitor Center. The distance from the park entrance means that the park's point-of-contact is not available to the public as they enter the park. In addition, the Camptender's Cottage must be closed from mid-to late fall until spring (in 2013, the closure season began on November 12) due to weather conditions. The cottage is used for summer seasonal housing because it is not winterized. The plumbing must be shut off and water drained to protect pipes from bursting and there is potential for road closure due to winter conditions and early spring flooding. Furthermore, the facility is too small for suitable functionality as a visitor center given the current and projected increase in visitation, due largely to rapid population growth in the local community from continued energy development. The Camptender's Cottage has approximately 500 square feet of space dedicated to visitor functions compared to the 2,100 square feet on the main floor level of the Abandoned Visitor Center.

Deficiencies of Quarters 205B as the temporary administrative facility include the building being separate from the Temporary Visitor Center, causing staff to either perform visitor-related functions or administration functions for a block of time rather than efficiently switching between the two functions in a joint facility. In addition, Quarters 205B was designed to function as a two-bedroom residence and consequently does not readily function as office space, with desks and other office materials scattered throughout the living quarters.

Figure 7
Existing Facilities



THIS PAGE INTENTIONALLY LEFT BLANK

Figure 8
View of Abandoned Visitor Center Near Park Entrance

Figure 9
View of Camptender's Cottage Serving as Temporary Visitor Center

THIS PAGE INTENTIONALLY LEFT BLANK

1.4 PROJECT PLANNING AND SCOPING

To identify the range of actions considered, alternatives, and impacts during the environmental analysis for the new North Unit Visitor Center, the park issued public notices; posted a scoping package on the NPS Planning, Environment, and Public Comment (PEPC) website; and mailed scoping packages to particular resource agencies and Native American tribes. On February 18, 2014, the park published a public notice soliciting comments on the proposal to construct a replacement visitor center. The notice was issued to over 40 media contacts in the region and published on the PEPC website at http://parkplanning.nps.gov/projectHome.cfm?projectID=48245. The comment period for this notice expired on March 6, 2014. In addition, the scoping packages mailed to particular agencies and tribes contained letters dated February 20, 2014, and requested responses by March 18, 2014.

Comments on the Project were received from both resource agencies and the public. Agency response letters were received from the U.S. Fish and Wildlife Service (USFWS), U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), the State Historical Society of North Dakota, and the North Dakota Department of Commerce, and are discussed further in Section 1.5, Impact Topics. No agency response indicated any concerns about the Project. Five public commenters recommended consideration of alternate locations for the new visitor center, and one commenter proposed that the Project include geothermal heating and cooling. Additional information on consultation and coordination is provided in Chapter 4.

In addition to the GMP/EA, other planning efforts for improved function of the North Unit have been implemented and are sources of information for this EA. The Fire Management Plan is updated every 5 years and provides a plan for maintenance of the park ecosystem through controlled burns (NPS, 2009). The Long-Range Interpretive Plan, completed in August 2011, provides background information on the North Unit and a future (10 year) vision on how the unit should be managed for interpretation, education, and visitor experience opportunities (NPS, August 2011). Another source of planning and background information was the EA prepared for the upgrade of Scenic Drive (NPS, 2007).

1.5 IMPACT TOPICS

Impact topics are cultural (human) and natural resources that could potentially be affected by the Project. During early Project planning, impact topics for the Project were identified using guidance from legislative requirements; Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision-making (NPS, October 5, 2011); the NPS Environmental Screening Form (ESF); NPS's Management Policies 2006; and park-specific information. Impact topics retained for evaluation of the Project and those dismissed from further analysis in this EA are discussed below. If a resource from the ESF is not present in the Project area (such as marine resources) or would not be impacted (such as land use), the resource was not identified in Sections 1.5.1 or 1.5.2.

1.5.1 Impact Topics Retained

Issues that warrant analysis were initially identified by NPS staff during the internal scoping process; input from resource agencies and the public during external scoping contributed to the list of retained topics. Impact topics were also identified based on federal laws, regulations, and executive orders; NPS's Management Policies 2006; and knowledge of resources that are limited or could be easily impacted. The Project has the potential to impact the natural resources of the park's North Unit, including geologic resources and introduction of invasive non-native species. The Project also has the potential to impact visitor experience, aesthetic resources, and recreation resources (supply, demand, visitation, and activities). A brief rationale for further analyzing these topics follows. A more in-depth discussion of these topics is provided in Chapter 3, Affected Environment and Environmental Consequences, along with the regulations and policies that pertain to each impact topic.

Geologic Resources

The Project would involve disturbances of geologic resources through excavation, stockpiling, and re-grading of soil after construction. The Build Alternatives would also affect surface geology and would be impacted by coal seam and other site suitability issues to varying degrees, more than under the No Action Alternative. The footprint and location of each Build Alternative is different. To provide a comparison of impacts on geologic resources (including soils), as well as the potential impact of geologic resources on the Project, this impact topic is assessed in detail in this EA.

Introduction of Non-native Species

Implementation of the Project could, without appropriate mitigation, contribute to the spread of invasive exotic plants in the vicinity of the Build Alternatives. Theodore Roosevelt National Park represents some of the best examples of native grasslands in North Dakota; invasion by exotic species has been identified second only to habitat loss as a threat to biodiversity and ecosystem processes/integrity. It is imperative that ecological diversity be preserved and protected. Introduction of non-native species is perhaps the most serious blow to native biodiversity. The No Action Alternative would include occasional control of established weeds and would lead to some introduction of non-native species based on opportunistic infestation, but would have less potential for occurrence than under any of the Build Alternatives. Therefore, invasive exotic plants is an impact topic that is discussed in detail in this EA.

Visitor Experience and Aesthetic Resources

Both the No Action Alternative and the Build Alternatives would affect visitor use and experience. Construction activities resulting from the Build Alternatives would affect vehicular access and would impact visitors' experience of the park's natural scenery and sounds. Therefore, visitor experience and aesthetic resources is an impact topic that is analyzed in detail in this EA. Air quality and soundscapes were individually dismissed from further analysis, but are considered in the context of visitor experience and aesthetic resources.

Recreation Resources

Much of the North Unit, outside of road corridors and areas with buildings, is designated as wilderness. None of the Build Alternatives would adversely affect the condition of wilderness areas or its resource values. Construction would temporarily impact access to the Temporary Visitor Center and other areas of the park west of the Build Alternatives. Upon completion of construction of a Build Alternative (no construction is planned for the No Action Alternative), the proposed visitor center would better promote the improved use of recreation resources, including wilderness. Recreation resources are addressed in more detail in this EA.

1.5.2 Impact Topics Dismissed from Further Analysis

None of the actions anticipated by this Project would likely have more than a negligible effect on the resources discussed below, which have been dismissed from further analysis based on the rationale provided for each. These impact topics are not discussed further in this EA.

Air Quality

The park is designated as a Class I air quality area, which is an area designated by the U.S. Environmental Protection Agency for the highest level of protection, providing clean air; brilliant, clear day and night skies; and outstanding examples of a relatively unpolluted environment. Air quality within the park is currently very good, but this is being investigated based on recent degradation. Air quality would be temporarily affected by construction of the proposed visitor center. The potential short-term impact of each of the Build Alternatives would vary minimally due to the different sizes and locations of construction footprints. However, air quality is an important aspect of visitor experience; consequently, while air quality is not carried forward as an individual resource, it is considered under Visitor Experience and Aesthetic Resources.

Geohazards

The proposed visitor center would not exacerbate any existing geologic hazards, such as faults, coal seams, and sinkholes. The proposed structure would not have a basement or other features that would potentially induce a landslide or subsidence. Consequently, the topic of geohazards was dismissed from further analysis.

Streamflow Characteristics

An unnamed intermittent stream that drains much of the project area into the Little Missouri River is located between Build sites 4 and 1-3 (U.S. Geological Survey [USGS]), May 8, 2013). There would be negligible impacts on streamflow characteristics of the nearby intermittent stream during construction. Short-term alterations to surface flow could be expected to accommodate construction activities, but this would be corrected prior to or immediately following building completion. Long-term impacts are not anticipated because impervious areas and topography in the vicinity of the proposed visitor center would be essentially the same as existing conditions. Consequently, this topic was dismissed from further review.

Water Quality or Quantity

Implementation of required erosion and sediment controls would minimize impacts on water quality. Impacts on water quality would be short-term (during construction), with

controls in place to prevent sedimentation from being carried into the nearby unnamed intermittent stream, and to reduce erosion. Minimal water would be required for concrete during construction. Consequently, this topic was dismissed from further review.

Floodplains or Wetlands

In 1986, USGS identified the 100-year and 500-year floodplains of the Little Missouri River adjacent to the park's North Unit (Emerson and Macek-Rowland, 1986). Construction of the Project would occur outside of the 100-year and 500-year floodplains of the Little Missouri River. Consequently, the topic of floodplains was dismissed from further analysis.

The closest National Wetlands Inventory-mapped wetlands are approximately 1,400 feet southwest of the Build Alternative sites (USFWS, February 19, 2011). There are no hydric soils or other indications of wetlands in the vicinity of the Project area. Therefore, the topic of wetlands was dismissed from further analysis.

Species of Special Concern (Threatened and Endangered Species)

The Endangered Species Act of 1973 requires the evaluation of impacts on endangered, threatened, or protected species and critical habitats (16 USC 1531 et seq.). NPS policy also requires examination of the impacts on Federal candidate species as well as threatened, endangered, candidate, rare, declining, and sensitive species that are listed by the state of North Dakota. Initial Project scoping began with the Information, Planning, and Conservation System (IPAC) website to obtain an official species list (USFWS, February 14, 2014). The following Federally listed or candidate species have previously been identified as occurring in the vicinity of the Project area:

- Black-footed ferret (*Mustela nigripes*, listed as endangered and as an experimental population, non-essential). The black-footed ferret is found in or near prairie dog towns. No black-footed ferrets have been documented in the park. Moreover, the acreage of prairie dog towns in the North Unit is exceedingly small (99.6 acres total in 2013) and is not suitable for black-footed ferret establishment.
- Dakota skipper (*Hesperia dacotae*, listed as proposed threatened). The Dakota skipper is found in native prairie containing a high diversity of wildflowers and grasses: either low (wet) prairie dominated by bluestem grasses, wood lily, harebell, and smooth camas; or upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needlegrass, pale purple coneflower, upright coneflower, and blanketflower. The Project area is small and dominated by brome, mowed vegetation, or both, making it poor habitat for the Dakota skipper.
- Gray wolf (*Canis lupis*, listed as endangered). The gray wolf, an infrequent visitor to North Dakota, has no habitat preference and feeds on a variety of prey. There have been no verified sightings in the North Unit, and the species is an uncommon transient through the Little Missouri River Badlands.
- Whooping crane (*Grus americana*, listed as endangered). The whooping crane is a migratory bird species that inhabits shallow wetlands characterized by cattails, bulrushes, and sedges. They could also be found in upland areas, especially during migration. There have been no verified sightings in the North Unit; however, it is possible that the species could fly over the Project area.

- Least tern (*Sterna antillarum*, listed as endangered). The least tern uses sparsely vegetated sandbars on the Missouri and Yellowstone rivers. Birds nest, raise young, and relax on barren river sandbars. There is no suitable sandy riverine habitat in the Project area.
- Pallid sturgeon (*Scaphirhynchus albus*, listed as endangered). The pallid sturgeon prefers the bottom of large, shallow rivers with high turbidity and a natural flow. Preferred habitat has a diversity of depths and velocities formed by braided channels, sandbars, islands, sand flats, and gravel bars. There is no suitable river habitat near the Project area.
- Piping plover (*Charadrius melodus*, listed as threatened). Piping plovers inhabit barren sand and gravel shores of rivers and lakes. There is no suitable sandy riverine habitat in the Project area.
- Sprague's pipit (*Anthus spragueii*, listed as a candidate species). Sprague's pipits prefer relatively large prairie patches of at least approximately 72 acres, with larger patches of at least 360 acres preferred. There have been no verified sightings of the species in the North Unit. The Project area is small and is dominated by brome, mowed vegetation, or both, making it unlikely habitat for the Sprague's pipit.

North Dakota does not have a state threatened or endangered species list. Only those species listed by the Endangered Species Act of 1973 are considered threatened or endangered in North Dakota (North Dakota Game and Fish Department, n.d.). North Dakota's Wildlife Action Plan focuses on 100 species that are considered Species of Conservation Priority (North Dakota Game and Fish Department, December 2005). The Wildlife Action Plan focuses on the distribution, abundance, habitat requirements, threats, management goals, and monitoring techniques for each of these species. Level I species are in decline and receive little or no monetary support or conservation efforts. Level I species in the Little Missouri River Badlands landscape include Swainson's hawk (*Buteo swainsoni*), grasshopper sparrow (*Ammodramus savannarum*), lark bunting (*Calamospiza melanocorys*), plains spadefoot toad (*Spea bombifrons*), and black-tailed prairie dog (*Cynomys ludovicianus*). Level II species, which have a moderate conservation priority, in the Little Missouri River Badlands landscape include sharp tailed grouse (*Tympanuchus phasianellus*) and burrowing owl (*Athene cunicularia*). These species inhabit grassland and prairie areas (North Dakota Game and Fish Department, December 2005). The Project area is small and is dominated by brome, mowed vegetation, or both, making it unlikely habitat for any of these species of conservation priority.

No areas within the Project area are designated as critical habitat or ecologically critical (USFWS, February 14, 2014). Impacts from constructing the one of the Build Alternatives would largely be confined to previously disturbed areas, with a construction footprint (that is, building excluding supporting structures) not to exceed 4,700 square feet.

The park consulted with USFWS about potential adverse impacts on threatened and endangered species. A letter from USFWS was received by the park on March 6, 2014, indicating that no listed threatened or endangered species are known to occupy the Project area, and that the Project would not likely adversely affect threatened and

endangered species (see Appendix A). Therefore, impacts on threatened or endangered species were dismissed from detailed analysis in this EA.

While USFWS removed the bald eagle from the Federal threatened and endangered species list (USFWS, March 18, 2011), it remains protected by the Bald and Golden Eagle Protection Act of 1940 (16 USC 668-668d) and the Migratory Bird Treaty Act of 1918 (16 USC 703-712). Bald eagles are frequent winter residents in the Project area and have been observed as transients through the park during migration. Golden eagles occur as year-round residents and occasional nesters in the park. The Project is expected to have no effect on bald or golden eagles.

Unique Ecosystems, Biosphere Reserves, or World Heritage Sites

The park is listed by the International Union for Conservation of Nature (IUCN) as a Category II site. Category II sites are large natural or near-natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational, and visitor opportunities (Protected Planet, n.d.). The park is not listed as a Biosphere Reserve site or as a World Heritage site (UNESCO, n.d. a; UNESCO, n.d. b). None of the Build Alternatives would adversely affect the condition of the river or its resource values, or the wilderness areas of the park. Therefore, this topic was dismissed from further review.

Unique or Important Wildlife or Wildlife Habitat

The IUCN lists 58 species within the park; however, all of the listed species are categorized as species of "least concern" (Protected Planet, n.d.). Consequently, this topic was dismissed from further review for potential impacts from the Project.

Rare or Unusual Vegetation

The Project area has been previously disturbed by construction of the Abandoned Visitor Center and its associated parking lot, Scenic Drive, North Unit Maintenance Road, and a turn-around area near the intersection of Scenic Drive and North Unit Maintenance Road. Figure 7 shows the layout of the noted features. A mixture of commonly found native and introduced species, with no rare or unusual vegetation, is present in the vicinity of the Project. Consequently, rare and unusual vegetation is not analyzed in detail in this EA.

Soundscapes

Vehicle traffic is the main source of human-caused noise in the Project area. Although roadway speeds within the park are low, visitor traffic intermittently increases noise levels, particularly during the summer months when traffic levels are higher. The Build Alternatives are in a location that already incurs noticeable traffic-related noise. With the Build Alternatives discussed in this EA, human-caused noise would temporarily increase in the vicinity of construction; impacts on wilderness areas would be negligible. The Build Alternatives would result in more construction noise than the No Action Alternative. As an important component of visitor experience, soundscapes are further analyzed under Visitor Experience and Aesthetic Resources but is not carried forward as an discreet impact topic.

Cultural Resources

Cultural resources include archaeological sites, prehistoric and historic structures, cultural landscapes, ethnographic resources, and museum collections.

No known archaeological sites have been located during previous surveys in the Project area, and no known prehistoric or historic structures listed on the National Register of Historic Places (NRHP) or determined eligible for listing on the NRHP are located at the sites of the proposed Build Alternatives. NPS coordinated with the North Dakota State Historic Preservation Office (SHPO), and the SHPO concurred on March 3, 2014, with the NPS determination that the Project would result in no historic properties[1] affected (see Appendix A). Because previous survey work is several decades old, however, a follow-up archaeology survey was conducted in the Project area in November 2014; no sites of concern were identified.

The large stone entrance station pylon (HS-300) and the small stone entrance station pylon (HS-301), shown in Figures 8 and 10, respectively, were constructed by the Civilian Conservation Corps (CCC) and are considered by the park to be historic structures. However, the pylons are not expected to be moved, touched, or otherwise impacted by the Project.

A cultural landscape includes "cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values" (NPS, June 11, 1998). Construction of the Project would negligibly change the existing cultural landscape, which was disturbed during previous construction, and the new building would be designed in consideration of the cultural landscape.

An ethnographic resource is "a site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (NPS, June 11, 1998). The park's affiliated tribes have not identified any tribal ethnographic resources that would be adversely affected in the proposed Project's area of potential effect. The tribes will be provided with public review copies of this EA, and this topic will be revisited if new information becomes available as a result of that review.

Museum collections were moved from the unstable Abandoned Visitor Center to the South Unit and placed in storage. No impact on museum objects would occur.

Based on the absence of known cultural resources in the Project area, and NPS policies and procedures for addressing unplanned discoveries of cultural resources, this impact topic was dismissed from further review.

[1] Historic properties include archaeological sites, historic structures, or other property listed on or eligible for listing on the NRHP.

Figure 10
Abandoned Visitor Center with Small Stone Pylon (HS-301) in Foreground

Socioeconomic Environment

The supply of housing in the region of the park's North Unit is less than the demand for housing because of the widespread oil boom. However, constructing any of the Build Alternatives would allow the temporary housing in the park to be available for housing seasonal park workers. Additionally, the park proposes to replace the Abandoned Visitor Center with another of similar size and function. Therefore, the socioeconomic environment was dismissed as an impact topic.

Minority and Low-Income Populations

Executive Order 12898, "General Actions To Address Environmental Justice in Minority Populations and Low-Income Populations," requires all agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations or communities. The area surrounding the park's North Unit is sparsely populated, with only one farmstead within 1 mile of the Project. There are no minorities present within approximately 1 mile of the park. The percentage of minorities in the census tract surrounding the park is below the county average. The percentage of the population with income below the poverty level in the census block group surrounding the park is similar to the county and state (U.S. Census Bureau, December 17, 2013).

All communities and populations in the Project area would be equally affected by the construction and operation of the Project. No construction of a replacement visitor center would occur as a result of the No Action Alternative. None of the Build Alternatives or

the No Action Alternative would have disproportionately high adverse health or environmental effects on minorities or low-income populations or communities as defined in the Council on Environmental Quality's Environmental Justice Guidance under the National Environmental Policy Act (December 10, 1997). Therefore, environmental justice is not analyzed in detail in this EA.

Resources (including Resource Conservation Potential and Sustainability)

The proposed visitor center would be designed and constructed to conserve energy and be sustainable, providing a long-term beneficial impact on park resources. Any of the Build Alternatives would result in long-term energy conservation compared to the No Action Alternative. Therefore, this impact topic is not assessed in detail in this EA.

Other Environmental Resources

Prime or Unique Farmland

There is no prime or unique farmland or farmland of statewide importance in the vicinity of the Project (USDA NRCS, February 14, 2014). Consequently, the Farmland Protection Policy Act does not apply, and the topic of farmland is dismissed from further review.

Wild and Scenic River or Nationwide Rivers Inventory

The section of the Little Missouri River flowing through the North Unit is eligible for listing as a wild and scenic river, though it is not listed at present. It is identified on the Nationwide Rivers Inventory because of its unaltered condition and outstanding scenic, recreational, geological, historic, and cultural values, and because of its value as fish and wildlife habitat (NPS, February 27, 2009). However, the Project would not affect the condition of the river or its resource values. Therefore, wild and scenic rivers and the Nationwide Rivers Inventory are dismissed from further review.

Regulated Materials

Regulated materials are required to be handled and disposed of properly because of potential health and safety issues. Regulated materials, which are regulated by Federal, state, or local entities, include hazardous materials (such as paints and thinners), oils, petroleum, and asbestos. The new visitor center would be constructed with the use of some hazardous materials, oils, and petroleum, but these materials would be handled in accordance with Occupational Safety and Health Administration requirements. Handling and disposal of the demolished components of the Abandoned Visitor Center would be done in accordance with applicable Federal, state, and local laws. Therefore, regulated materials are dismissed from further review.

THIS PAGE INTENTIONALLY LEFT BLANK

CONTENTS

Figures

THIS PAGE INTENTIONALLY LEFT BLANK